# 1987 — A Year of Additional Start-up

## **IPSC**

Units Operational Responsibility — The responsibility for operation and maintenance of Unit Two was transferred to IPSC. The Converter Station, the Railcar Service Center, and the water supply intake at the DMAD reservoir were also turned over to IPSC.

PMA Assessment — Power Management Associates (PMA) conducted an assessment of IPSC's operation and management of the Project.

This same group would return to do additional evaluations in 1991 and 1996. A copy of PMA's 1987 Executive Summary is contained in Exhibit #6.

Burner Thermal Redesign — Like all other major equipment at IPSC, boiler windbox compartments received a routine inspection by Engineering Services at all scheduled outages. Inspections completed during 1987 and the next few years showed increasing levels of degradation to the burners resulting from severe thermal fatigue and creep mechanisms. Concerns had been expressed to the manufacturer, Babcock and Wilcox (B&W), regarding excessive temperatures around the inner burner sites when the corresponding mill was out of service. A change to operating procedures to keep a minimum air flow to prevent overheating was put into effect and an analysis of possible design changes was begun.

Fire Brigade and Emergency Medical Responsibilities — The responsibility for preparing for, and responding to fire and medical emergencies was transferred to IPSC in May of 1987. This coincided with the demobilization of the construction Manager (Bechtel) in June of 1987.

The first IPSC Fire Brigade and Emergency Medical Response Teams were made up of employees from the Operations, Maintenance, and Support Services Departments. Since then, the responsibility for the Fire Brigade has been placed under the direction of the Operations Department which provides coverage twenty-four hours a day, seven days a week.



Computer Aided Drafting — The first CAD software and computer system, Versa Cad was purchased. Computer aided drafting provided the ability to design, approve, and construct new projects with more speed, accuracy, and clarity.

Predictive Maintenance — The decision was made in early 1987 to expand the vibration analysis program. Two Vibration Technician positions were filled internally and they began to study and train on vibration analysis under the direction of the Results Engineer.

Additional equipment to do routine vibration data collection was purchased and data collection routes were established. This program allowed detection of the early stages of bearing failures and loss of balance due to wear in rotating equipment. Equipment could then be scheduled for repair before more costly damage occurred.

Audit of Payroll — An audit team representing the Audit Committee of the IPP Coordinating Committee performed an audit of the payroll costs recorded by IPSC for the period of July 1, 1986 through March 31, 1987. During the time period of July 1, 1986 to December 31, 1986 the IPSC payroll costs were calculated and recorded at the plant site. Payroll reports were sent to the Los Angles Department of Water and Power (LADWP) for review and to the Intermoutain Power Agency (IPA) for review and physical preparation of the payroll checks. Subsequent to January 1, 1987, IPSC payroll costs were calculated and recorded at the site with payroll reports sent to LADWP and IPA for review. After the review process was completed, the payroll checks were prepared at the plant site and distributed by IPSC.

The purpose of the audit was to verify that the transfer of the payroll preparation process from IPA to IPSC was in accordance with accounting principles established by IPSC and the Operating Agent. Specifically, to verify that expenditures processed through the payroll system were properly authorized, documented, recorded, and paid. The general finding of the audit concluded that the payroll costs processed during the period of July 1, 1986 through March 31, 1987 were properly authorized, recorded, and paid.

Audit of Other Programs — The inventory and control systems, accounts payable system and related internal controls, and capital expenditures were also audited during the year. The results of the audits were normally very positive and in all cases the findings were present in the following manner: "The recommendations that follow are very specific in nature and are presented with the objective of enhancing and building the system and improving the accounting controls."

This approach of working together to produce a better way of doing business laid the foundation for the way records would be maintained throughout out the Project's business life.

Number of Employees — By the end of the year, the number of employees was 607.

#### LADWP

Unit 2 Turbine Roll — The first turbine roll of Unit 2 occurred in January.

Construction Demobilization — The Construction Manager (Bechtel) completed demobilization of its staff in June and the Site Project Manager was demobilized in July of 1987. A small construction work force remained on site to complete deficiencies and modifications identified during construction.

Fuels Management System — The Fuels Management System (FMS) was implemented in Los Angeles in 1987 with computer access from personnel at the coal mines, Railcar Service Center, and the Intermountain Power Facility (IPF). The purpose of this system was to provide

an efficient invoice payment and verification system, provide a consistent audit trail, and minimize fuel costs. The software was developed by Management Analysis Co. (MAC). The software was loaded on a Prime 5350 mini-computer located in Los Angeles, California. The system would be utilized by the mines, Railcar Service Center, IPF, and LADWP personnel even though many problems existed with the application. MAC went out of business, therefore making it virtually impossible to get any enhancements to the software application. Because some parts of the system worked rather well, it was determined to utilize the system for as long as it would provide the needed information.

One-Time Bonus — The IPSC Board of Directors authorized a one-time bonus for current employees, due to the exemplary manner in which Service employees worked to enable an earlier-than-scheduled commercial operation date.

### **IPA**

Financing — The gross debt service savings resulting from the refundings this fiscal year was approximately \$792 million, bringing the total to \$1,996 billion since the refunding program began. These savings, which passed directly to the ratepayer, would amount to over \$50 million annually over the life of the Project.

Unit 2 Operation — Unit 2 was declared in firm operation in May.

Environmental Award — <u>Power Magazine</u> presented its 1987 Environmental Protection Award to IPA for bringing the station on line and operating at high availability within emission limits. The cleaning system designers, General Electric Environmental Systems Inc., provided redundancy in each major section of the system to ensure full protection. Total particle removal has been well above the 99.75 percent designed for the system.

## Other

Project Dedication — Attracted 10,000 Guests — June 13, 1987— Dedication of Power Plant and IPP Converter Station

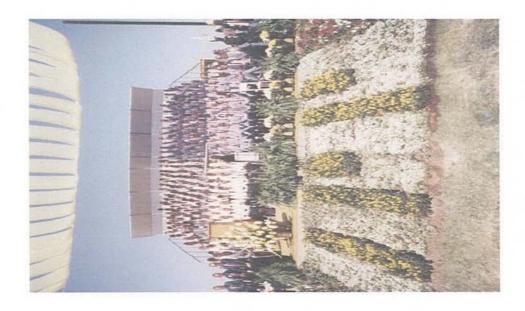
## Speakers were:

Delta High School Band

W. Boyd Christensen General Manager, IPA Reece D. Nielsen Chairman of the Board, IPA Norman H. Bangerter Governor, state of Utah Orrin G. Hatch U.S. Senator, state of Utah Paul H. Lane General Manager, Chief Engineer, LADWP Michael Styler Chairman, Millard County Commission James H. Anthony Project Manager, LADWP P.J. Adam Black & Veatch Thomas S. Monson -Second Counselor in the First Presidency of The Church of Jesus Christ of Latter-day Saints — Dedicatory

The Church of Jesus Christ of Latter-day Saints Tabernacle Choir performed.

Prelude Music



U.S. Naval Reserve Color Guard, Fort Douglas, Utah — Presented Colors



Other entertainment —

Joe Muscaolino Band

Double Take

Saliva Sisters

Bel Aires

Oquirrh Ridge Drifters

Wasatch Rascals

Commemorative gifts were given to employees and the public: magnetic refrigerator light bulb with "We're up and Humming" on it, flashlights, frisbees, water bottles, and visor hats.

Lunch was provided.

It is estimated that about 5000 visitors on either bus or walking tours visited the following areas: Control Room, Administration Building, Model Room, Fuels Lab, Machine Shop, Boiler, Turbine Deck, and Generator. Forty buses were used for the tours; this allowed one to leave about every ten minutes. Tour buses were provided to transport people from the Community Center to the plant site for tours. The walking tour took about one and a half hours to complete. Many of the IPSC employees served as guides for the walking and bus tours.

Energy Cost — The cost of energy dropped by more than half from 1983 projections as a result of favorable bond interest rates and refinancing activities by the Project.

